



FLWEMS Paramedic Medication Information For:

**MORPHINE SULFATE**

(MSO4)

(MOR-feen)

**Pregnancy Category:** C Morphine-1, -5, -10, -20★ M.O.S.★ M.O.S.-S.R.★ (Rx)

Morphine sulfate

**Morphine sulfate** (Astramorph PF)

Morphine

(MOR-feen SUL-fayt)

**Pregnancy Category:** C Astramorph PF Duramorph Infumorph Kadian M-Eslon★ M.O.S.-Sulfate★ MS Contin MSIR OMS Concentrate Oramorph SR RMS RMS Rectal Suppositories Roxanol Roxanol 100 Roxanol Rescudose Roxanol-T Roxanol UD Statex★ (C-II) (Rx)

**Classification**

Narcotic analgesic, morphine type

**See Also**

See also *Narcotic Analgesics*.

**Action/Kinetics**

Morphine is the prototype for opiate analgesics. Onset: approximately 15-60 min, based on epidural or intrathecal use. Peak effect: 30-60 min. Duration: 3-7 hr. t<sub>1/2</sub>: 1.5-2 hr. Oral morphine is only one-third to one-sixth as effective as parenteral products.

**Uses**

Intrathecal, epidural, PO (including sustained-release products), or by continuous IV infusion for acute or chronic pain. In low doses, morphine is more effective against dull, continuous pain than against intermittent, sharp pain. Large doses, however, will dull almost any kind of pain. Preoperative medication. To facilitate induction of anesthesia and reduce dose of anesthetic. *Investigational:* Acute LV failure (for dyspneic seizures) and pulmonary edema. Morphine should not be used with papaverine for analgesia in biliary spasms but may be used with papaverine in acute vascular occlusions.

**Additional Contraindications**

Epidural or intrathecal morphine: If infection is present at injection site, anticoagulant therapy, bleeding diathesis, if client has received parenteral corticosteroids within the past 2 weeks. Morphine injection: Heart failure secondary to chronic lung disease, cardiac arrhythmias, brain tumor, acute alcoholism, delirium tremens, convulsive states. Immediate release oral solution of morphine: Respiratory insufficiency, severe CNS depression, heart failure secondary to chronic lung disease, cardiac arrhythmias, increased intracranial or CSF pressure, head injuries, brain tumor, acute alcoholism, delirium tremens, after biliary tract surgery, suspected surgical abdomen, convulsive disorders, surgical anastomosis, with MAO inhibitors or within 14 days of these drugs.

**Special Concerns**

May increase the length of labor. Clients with known seizure disorders may be at greater risk for morphine-induced seizure activity. Respiratory depression may be delayed up to 24 hr after epidural or intrathecal use.

**Additional Drug Interactions**

*Amitriptyline* / ↑CNS and respiratory depression *Cimetidine* / ↑CNS and respiratory depression  
*Clomipramine* / ↑CNS and respiratory depression *Nortriptyline* / ↑CNS and respiratory depression *Warfarin*  
/ ↑Warfarin anticoagulant effect

**How Supplied**

Morphine hydrochloride: *Syrup*: 1 mg/mL, 5 mg/mL, 10 mg/mL, 20 mg/mL; *Concentrate*: 20 mg/mL, 50 mg/mL; *Suppository*: 10 mg, 20 mg, 30 mg; *Tablets*: 10 mg, 20 mg, 40 mg, 60 mg; *Slow-release tablets*: 30 mg, 60 mg. Morphine sulfate: *Capsule*: 15 mg, 30 mg; *Capsule, Extended Release*: 20 mg, 50 mg, 100 mg; *Oral Solution*: 10 mg/2.5 mL, 10 mg/5 mL, 20 mg/5 mL, 20 mg/mL, 30 mg/1.5 mL, 100 mg/5 mL; *Injection*: 0.5 mg/mL, 1 mg/mL, 2 mg/mL, 4 mg/mL, 5 mg/mL, 8 mg/mL, 10 mg/mL, 15 mg/mL, 25 mg/mL, 50 mg/mL;

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*Suppository*: 5 mg, 10 mg, 20 mg, 30 mg; *Tablet*: 15 mg, 30 mg; *Tablet, Controlled Release*: 15 mg, 30 mg, 60 mg, 100 mg, 200 mg; *Tablets, Soluble*: 10 mg, 15 mg, 30 mg

**Dosage**

•Capsules, Tablets, Oral Solution, Soluble Tablets, Syrup *Analgesia*.

10-20 mg (solution) or 15-30 mg (tablets) q 4 hr.

•Sustained-Release Tablets *Analgesia*.

Titrate first to analgesia using an immediate release product and then transfer to a long-acting product. To convert from immediate release PO morphine to controlled release PO morphine, give the total daily PO morphine dose q 24 hr if using Kadian; or, 1/2 the total daily PO morphine dose q 12 hr if using Oramorph SR, Kadian, or MS Contin; or, 1/3 the total daily PO morphine dose q 8 hr if using MS Contin. If Kadian is selected as the initial product, start with either 20 mg q 12 hr or 40 mg once daily. The MS Contin 200 mg tablet is only for narcotic tolerant clients requiring daily morphine equivalent doses of 400 or more mg.

•IM, SC *Analgesia*.

Adults: 10-20 mg/70 kg q 4 hr as needed; pediatric: 100-200 mcg/kg q 4 hr, up to a maximum of 15 mg/dose.

*MI*.

8-15 mg. For very severe pain, give additional smaller amounts q 3-4 hr.

•IV Infusion *Analgesia*.

Adults: 2.5-15 mg/70 kg in 4-5 mL of water for injection (should be administered slowly over 4-5 min).

•IV Infusion, Continuous *Analgesia*.

Adults: 0.1-1 mg/mL in D5W by a controlled-infusion pump.

•IV *Open-heart surgery*.

0.5 - 3 mg/kg as the sole anesthetic or with a suitable anesthetic. Give oxygen and adequate ventilation.

•Rectal Suppositories

Adults: 10-20 mg q 4 hr or as directed by provider.

•Intrathecal

Adults: 0.2-1 mg as a single daily injection.

•Epidural

Initial: 5 mg/day in the lumbar region; if analgesia is not manifested in 1 hr, increasing doses of 1-2 mg can be given, not to exceed 10 mg/day. For continuous infusion, 2-4 mg/day with additional doses of 1-2 mg if analgesia is not satisfactory.

**END OF INFORMATION – NOTHING FOLLOWS**